

CLAIMS

What is claimed is:

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1. A method of providing digital subscriber line service comprising the steps of:
providing digital subscriber line service for a first subscriber via a cross-connect switch connected to a digital subscriber line access multiplexer connected to a digital telecommunications network, the cross connect switch supplying a connection between data processing equipment of the first subscriber and the digital subscriber line access multiplexer;
receiving, at a network management system connected to the cross connect switch, an indication that the first subscriber has terminated service;
in response to receiving the indication at the network management system, transmitting a command to the cross connect switch to switch out the connection of the data processing equipment of first subscriber to the digital access multiplexer; and
in response to receiving the command at the cross-connect switch, switching out the connection of the data processing equipment of first subscriber to the digital access multiplexer.

2. The method of claim 1, wherein the connection between data processing equipment of the first subscriber and the digital subscriber line access multiplexer comprises a central office MDF connected to the data processing equipment of the first

4 subscriber, a collocation arrangement demarcation connected to the cross-connect
5 switch and a patch line connecting the central office MDF to the collocation
6 arrangement demarcation.

1 3. The method of claim 2, wherein the connection between the data processing
2 equipment of the first subscriber and the central office MDF is unshared.

1 4. The method of claim 3, wherein the cross-connect switch is connected to a port
2 of the digital subscriber line access multiplexer.

1 5. The method of claim 4, wherein the step of switching out the connection of the
2 data processing equipment of first subscriber to the digital access multiplexer frees up
3 the port of the digital subscriber line access multiplexer.

1 6. The method of claim 1, wherein the method further comprises the steps of:
2 receiving, at a network management system connected to the cross connect
3 switch, an indication that a second subscriber has initiated service;
4 in response to receiving the indication at the network management system,
5 transmitting a command to the cross connect switch to connect data processing
6 equipment of second subscriber to the digital access multiplexer; and

7 in response to receiving the command at the cross-connect switch, connecting the
8 data processing equipment of the second subscriber to the digital access multiplexer.

1 7. The method of claim 6, wherein the cross-connect switch is connected to a port
2 of the digital subscriber line access multiplexer and the step of switching out the
3 connection of the data processing equipment of the first subscriber to the digital access
4 multiplexer frees up the port of the digital subscriber line access multiplexer

1 8. The method of claim 7, wherein the step of connecting the data processing
2 equipment of the second subscriber to the digital access multiplexer comprises the step
3 of:

4 connecting the data processing equipment of the second subscriber to the port of
5 the digital subscriber line access multiplexer that was freed up by the step of switching
6 out the connection of the data processing equipment of first subscriber to the digital
7 access multiplexer.

1 9. The method of claim 8, wherein the connection between data processing
2 equipment of the first subscriber and the digital subscriber line access multiplexer
3 comprises a central office MDF connected to the data processing equipment of the
4 second subscriber, a collocation arrangement demarcation connected to the cross-

5 connect switch and a patch line connecting the central office MDF to the collocation
6 arrangement demarcation.

1 10. The method of claim 9, wherein the connection between the data processing
2 equipment of the first subscriber and the central office MDF is unshared.

1 11. The method of claim 10, wherein the connection between data processing
2 equipment of the second subscriber and the digital subscriber line access multiplexer
3 comprises a central office MDF connected to the data processing equipment of the
4 second subscriber, a collocation arrangement demarcation connected to the cross-
5 connect switch and a patch line connecting the central office MDF to the collocation
6 arrangement demarcation.

1 12. The method of claim 11, wherein the connection between the data processing
2 equipment of the second subscriber and the central office MDF is unshared.

13. A system for providing digital subscriber line service comprising:

2 means for providing digital subscriber line service for a first subscriber via a
3 cross-connect switch connected to a digital subscriber line access multiplexer connected
4 to a digital telecommunications network, the cross connect switch supplying a

5 connection between data processing equipment of the first subscriber and the digital
6 subscriber line access multiplexer;

7 means for receiving, at a network management system connected to the cross
8 connect switch, an indication that the first subscriber has terminated service;

9 means for, in response to receiving the indication at the network management
10 system, transmitting a command to the cross connect switch to switch out the
11 connection of the data processing equipment of first subscriber to the digital access
12 multiplexer; and

13 means for, in response to receiving the command at the cross-connect switch,
14 switching out the connection of the data processing equipment of first subscriber to the
15 digital access multiplexer.

1 14. The system of claim 13, wherein the connection between data processing
2 equipment of the first subscriber and the digital subscriber line access multiplexer
3 comprises a central office MDF connected to the data processing equipment of the first
4 subscriber, a collocation arrangement demarcation connected to the cross-connect
5 switch and a patch line connecting the central office MDF to the collocation
6 arrangement demarcation.

1 15. The system of claim 14, wherein the connection between the data processing
2 equipment of the first subscriber and the central office MDF is unshared.

1 16. The system of claim 15, wherein the cross-connect switch is connected to a port
2 of the digital subscriber line access multiplexer.

1 17. The system of claim 16, wherein the means for switching out the connection of
2 the data processing equipment of first subscriber to the digital access multiplexer frees
3 up the port of the digital subscriber line access multiplexer.

1 18. The system of claim 13, wherein the system further comprises:
2 means for receiving, at a network management system connected to the cross
3 connect switch, an indication that a second subscriber has initiated service;
4 means for, in response to receiving the indication at the network management
5 system, transmitting a command to the cross connect switch to connect data processing
6 equipment of the second subscriber to the digital access multiplexer; and
7 means for, in response to receiving the command at the cross-connect switch,
8 connecting the data processing equipment of the second subscriber to the digital access
9 multiplexer.

1 19. The system of claim 18, wherein the cross-connect switch is connected to a port
2 of the digital subscriber line access multiplexer and the step of switching out the
3 connection of the data processing equipment of first subscriber to the digital access
4 multiplexer frees up the port of the digital subscriber line access multiplexer

1 20. The system of claim 19, wherein the step of connecting the data processing
2 equipment of second subscriber to the digital access multiplexer comprises the step of:
3 connecting the data processing equipment of the second subscriber to the port of
4 the digital subscriber line access multiplexer that was freed up by the step of switching
5 out the connection of the data processing equipment of first subscriber to the digital
6 access multiplexer.

1 21. The system of claim 20, wherein the connection between data processing
2 equipment of the first subscriber and the digital subscriber line access multiplexer
3 comprises a central office MDF connected to the data processing equipment of the
4 second subscriber, a collocation arrangement demarcation connected to the cross-
5 connect switch and a patch line connecting the central office MDF to the collocation
6 arrangement demarcation.

1 22. The system of claim 21, wherein the connection between the data processing
2 equipment of the first subscriber and the central office MDF is unshared.

1 23. The system of claim 22, wherein the connection between data processing
2 equipment of the second subscriber and the digital subscriber line access multiplexer
3 comprises a central office MDF connected to the data processing equipment of the
4 second subscriber, a collocation arrangement demarcation connected to the cross-
5 connect switch and a patch line connecting the central office MDF to the collocation
6 arrangement demarcation.

1 24. The system of claim 23, wherein the connection between the data processing
2 equipment of the second subscriber and the central office MDF is unshared.

1 25. A system for providing digital subscriber line service comprising:
2 a cross-connect switch connected to a digital subscriber line access multiplexer
3 connected to a digital telecommunications network, the cross connect switch operable to
4 supply a connection between data processing equipment of a first subscriber and the
5 digital subscriber line access multiplexer;
6 a network management system connected to the cross connect switch operable to
7 receive an indication that the first subscriber has terminated service and operable to, in

8 response to receiving the indication, transmit a command to the cross connect switch to
9 switch out the connection of the data processing equipment of first subscriber to the
10 digital access multiplexer; and

11 wherein the cross-connect switch is further operable to, in response to receiving
12 the command from the network management system, switch out the connection of the
13 data processing equipment of first subscriber to the digital access multiplexer.

1 26. The system of claim 25, wherein the connection between data processing
2 equipment of the first subscriber and the digital subscriber line access multiplexer
3 comprises a central office MDF connected to the data processing equipment of the first
4 subscriber, a collocation arrangement demarcation connected to the cross-connect
5 switch and a patch line connecting the central office MDF to the collocation
6 arrangement demarcation.

1 27. The system of claim 26, wherein the connection between the data processing
2 equipment of the first subscriber and the central office MDF is unshared.

1 28. The system of claim 27, wherein the cross-connect switch is connected to a port
2 of the digital subscriber line access multiplexer.

1 29. The system of claim 28, wherein the means for switching out the connection of
2 the data processing equipment of first subscriber to the digital access multiplexer frees
3 up the port of the digital subscriber line access multiplexer.

1 30. The system of claim 25, wherein the network management system is further
2 operable to receive an indication that a second subscriber has initiated service and is
3 further operable to, in response, transmit a command to the cross connect switch to
4 connect data processing equipment of second subscriber to the digital access
5 multiplexer; and the cross-connect switch is further operable to, in response to receiving
6 the command, connect the data processing equipment of the second subscriber to the
7 digital access multiplexer.

1 31. The system of claim 30, wherein the cross-connect switch is connected to a port
2 of the digital subscriber line access multiplexer and the step of switching out the
3 connection of the data processing equipment of first subscriber to the digital access
4 multiplexer frees up the port of the digital subscriber line access multiplexer

1 32. The system of claim 31, wherein the cross-connect switch is further operable to
2 connect the data processing equipment of the second subscriber to the port of the digital

3 subscriber line access multiplexer that was freed up by switching out the connection of
4 the data processing equipment of first subscriber to the digital access multiplexer.

1 33. The system of claim 32, wherein the connection between data processing
2 equipment of the first subscriber and the digital subscriber line access multiplexer
3 comprises a central office MDF connected to the data processing equipment of the
4 second subscriber, a collocation arrangement demarcation connected to the cross-
5 connect switch and a patch line connecting the central office MDF to the collocation
6 arrangement demarcation.

1 34. The system of claim 33, wherein the connection between the data processing
2 equipment of the first subscriber and the central office MDF is unshared.

1 35. The system of claim 34, wherein the connection between data processing
2 equipment of the second subscriber and the digital subscriber line access multiplexer
3 comprises a central office MDF connected to the data processing equipment of the
4 second subscriber, a collocation arrangement demarcation connected to the cross-
5 connect switch and a patch line connecting the central office MDF to the collocation
6 arrangement demarcation.

- 1 36. The system of claim 35, wherein the connection between the data processing
2 equipment of the second subscriber and the central office MDF is unshared.